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EDITED BY WILLIAM HUNTING, F.R.C.V.S.

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A VETERINARY SURGEON AT THE LOCAL GOVERNMENT BOARD.

At first sight it is rather a taking idea that the Local Government Board should appoint a veterinary surgeon on their medical staff, to advise them concerning disease which may be transmitted from animals to man. At present our practitioners rather resent the action of some medical men, who presume to understand animal pathology so well that they would light-heartedly enter cowsheds and examine the animals and attempt a diagnosis. As a rule Medical Officers of Health are content to trust the examination of animals to a veterinary surgeon, who holds a sort of inferior position and is made use of when wanted. The M.O.H. is quite willing to pick the brains of a veterinary surgeon, but too often unwilling to credit the owner of the brains with any independent thought or special expert knowledge.

These are the grievances that we hear stated, at any rate, and for which the proposal of a veterinary surgeon at the Local Government Board is suggested as a remedy. Now how would such an appointment help us? How could it improve our position?

Suppose one of our best men were appointed as veterinary adviser to the L.G.B., he could only hold a subordinate position among the medical men on the staff, and his opinion would be swamped when opposed to the medical. He could make himself a nuisance, and then would be more harm than good to us, or he could play a quiet subordinate part, draw his salary and do nothing.

The L.G.B. has a large medical staff, whose duties are to enquire into outbreaks of human disease and to report. They have some slight control over medical officers of health, but these gentlemen are essentially servants of the Local Authorities. The chief medical work of the L.G.B. is the framing of legislation, and a veterinary surgeon on the Board would have very little weight in modifying any clauses which gave powers to the M.O.H. —powers which we think conflict with our duties and privileges.

The diseases of animals are looked after by the Board of Agriculture, and the farmers and stock-owners throughout the country follow the Board, and every year are more and more inclined to become jealous and suspicious of the L.G.B. The clauses in various Bills relating to milk, meat, and animal diseases, which are framed by the Local Government Board are nearly always drawn in favour of extensive interference by the M.O.H., and farmers resent the crudeness with which regulations are made by men with no practical knowledge of the subject. The stock-owner is the class with which all veterinary interests are bound up, and it would not be a good time for us when the Local Government Board could say, in answer to complaints, "Why, this regulation was approved by our veterinary adviser."

There will always be differences of opinion between the Veterinary Inspector and the M.O.H. on the question of disease in animals. If the two are under one State department the V.S. must take an inferior position, and he will lose what little independence he has.

When tuberculosis is subjected to legislation the Board of Agriculture will take foremost place, and the Local Authorities will be guided greatly by the stock-owners. With these two the veterinary surgeon will find his best friends, and it seems a mistake for us to give a hostage, in the shape of an adviser, to the enemy. Let the L.G.B. retain its medical staff unadulterated, and let the Board of Agriculture remain the department upon which the veterinary profession relies. The two departments are not likely to draft Bills concerning things in which both are interested without some communication. Our best strategy would seem to be to strengthen our position with the Board of Agriculture and with the stock-owner.

The public will certainly find their advantage in keeping the two Departments separate—having veterinarians with the Board and medical men at the L.G.B. We have not forgotten the Hendon disease. The officers of the L.G.B. discovered an occult disease of the cow that caused scarlet fever in man. The Board of Agriculture, through Sir G. T. Brown, made a further enquiry which exposed the error. If the enquiry had been made by one Department, including medical and veterinary experts, the truth would not have been recognised, and cowkeepers would have been penalised whenever scarlet fever prevailed. Everything considered, we believe that any veterinary appointment made by the L.G.B. would be a mistake, and a further means of fettering what little independent action we have.

UMI

THE OPERATIVE TREATMENT FOR ROARING.

On reading the interesting account of the discussion of the above subject in the proceedings of the Central Veterinary Society, it strikes one as not a little singular that, with the exception of Prof. Macqueen, none of the older members in attendance would appear to recollect that the latter day powwows on laryngeal surgery had their prototypes between 1887 and 1889. Then, as now, Professors and others, who did not use that somewhat doubtful designation, went about the country demonstrating before awe-stricken audiences.

The members of the Midland Counties Veterinary Medical Association, we read in *The Veterinary Journal* of July, 1889, "adjourned to the President's yard, where they witnessed a successful performance by Prof. Axe of the new operation for the cure of roaring upon three roarers. During the course of the operations, running comments were made by the Professor, each part being named as the knife passed through it, and special points of difficulty being briefly dwelt upon. After the completion of the operation the Professor received quite an ovation, and was specially complimented by many present on the wonderful dexterity, surgical skill, and rapidity with which the operations were performed. The Professor then gave a short address on the after treatment. . . . In four to six weeks the wound would be healed, but ten weeks should be allowed to transpire before any test was adopted for trying the patient's wind."

It is true that arytenoidectomy—the operation performed by Prof. Axe—was mostly in favour at that time, but to my personal knowledge the late Principal Williams in one or two instances merely excised the mucous membrane of the left laryngeal ventricle; and I believe this operation was extensively performed by Mr. Edward Cotterill, surgeon, of Bicester. I well remember riding, in 1887 or 1888, a chestnut mare a good gallop some eight or ten weeks after her left ventricle had been stripped by the Principal of the New Veterinary College, and that she made very little noise; so little, in fact, that unless she were ridden by the person examining her she would almost certainly have been passed as sound. Other cases of excision of the mucous membrane of the ventricle, or excision of the arytenoid cartilage, were not, if my memory serves me, so satisfactory; though in instances in which roaring was due to paralysis of the arytenoid cartilage considerable improvement was reported. George Fleming held out great expectations from the removal of the arytenoid. Many may remember the old "cured" chaser to which he pointed with such pride, and how he enthused when the old beast ran a bad second in a little Hunt chase in a field of two.

An interchange of ideas with Mr. Fleming across the examination table at this period could hardly fail to impress one with the great possibilities of laryngeal surgery.

In 1889, I bought an old plater whose musical propensities were well developed. Not unmindful of the success of my old and respected mentor, Principal Williams, with the chestnut mare, I stripped the mucous membrane from the plater's left laryngeal ventricle. The gelding did not make as much noise as before, but he did not regain his form, and I was ultimately glad enough to sell him to carry all and sundry at a popular northern seaside resort.

About this time the late F. B. Jones patented his improved tracheotomy tube, and it knocked all the laryngeal operations on the head, so far as racehorses were concerned. A large number of races have since been won by horses wearing tubes, but there is not a single recorded instance of a winner which had undergone one of the laryngeal operations for roaring.

It may be that John M.P., of whom we have heard so much, or one of the several stallions "in the Stud Book" operated upon by Messrs. Hobday and Sutton, will break the ice, but past and recent experience is not consonant with such a highly desirable event. For hacks, harness horses, and hunters the improved operation, aided by improved after treatment, promises a degree of success; but, as Professor Macqueen has truly remarked, the patients selected should be downright roarers which almost choke after being galloped a short distance. It is difficult to gather how a whistler, both of whose cartilages move perfectly, can derive any benefit from the excision of the membrane of either one or both ventricles. In cases of this kind it is not easy to get union of the raw surfaces, owing to the constant movement of the arytenoids. But, on the other hand, the pull on the inflamed vocal cord —and the vocal cord always is inflamed for some days after operation—tends to make the horse a worse whistler than before.

In the 21st volume of the General Stud Book 2,334 colt foals are registered for the years 1905, 1906, and 1907. Of these about 1,500 ran uncut under Rules of Racing in 1909. Adding to this number 300 horses, five year old and upwards, we get a total of 1,800 as representing the number of colts and stallions of all ages which ran on the flat last year. Now Mr. Hobday informs us there are "hundreds of stallions (presumably roarers) that are never used for stud purposes, and that these could quite well be operated upon." Taking his loose statement of "hundreds" to mean five, or even four hundred, we are left with the alarming conclusion that about 25 per cent. of the colts and horses which ran last year on the flat were roarers, and suitable subjects for operation! Some of us who know a little about the thoroughbred will be inclined to doubt the accuracy of Mr. Hobday's estimate, which is about on a par with his statement that "there are more roarers in this country than in all the rest of the world!" In this connection the following statistics relating to King's Premium horses, taken from the 12th report of the Royal Commission on Horse Breeding, may be of interest.

	1901	1902	1903	1904	1905	1906	1907	1908
Stallions sent for inspection	55	61	55	56	56	66	51	51
Rejected for roaring	—	—	—	1	—	—	—	1
Rejected for whistling	5	4	1	—	1	3	—	2

This gives a total of 19 horses rejected for roaring or whistling out of 451 examined; that is about 4·2 per cent. But some of the whistlers did not suffer appreciably from their affection whilst in training, at any rate they won good races, although not absolutely sound in their wind. Further, it is noteworthy that there were only two horses in the whole eight years rejected for roaring, and this leads to the conclusion that "curing" thoroughbred horses rejected at Islington would not be a very profitable occupation. Perhaps a better field for "qualifying" roaring show stallions may be found North of the Tweed. Applications in this direction, I suggest, should be addressed to the Editor of *The North British Agriculturist*.

J. B. Robertson.

ABSTRACTS FROM FOREIGN JOURNALS.

The Treatment of Dourine

Ehrlich last year recomended arsenophenylglycin, an arsenical compound allied to atoxyl, as a specific against trypanosomes. Roehl, after observing the effects of this drug upon experimentally induced trypanosomiasis of mice and rabbits, reported that a single injection of a safe dose cures even severe forms of the disease in these animals with certainty, and extolled the virtues of the new preparation against trypanosomal affections in no measured terms. Miessner also claimed that a mare, severely affected with dourine, and treated by him with arsenophenylglycin, was cured by its agency; and, while admitting that occasional natural recoveries from dourine are observed, he nevertheless considers that this mare was so severely affected that recovery could scarcely be anticipated and—as improvement commenced after the administration of the drug—feels justified in ascribing the recovery to the treatment alone.

Prof. Fröhner, of Berlin, contests this assumption, and relates a suggestive observation of his own upon two stallions, the history of which he has followed since last autumn. Both were then severely affected with dourine, paralytic as well as urticarial symptoms having appeared.

One of these stallions was treated with arsenophenylglycin, the other, which was equally severely affected, was left as a control animal. In the former animal, the first injection of arsenophenylglycin (which was provided by Ehrlich himself, and given intravenously in the prescribed dose on September 13, 1909) caused acute symptoms of arsenicism, but no arrest in the course of the disease. On the contrary, all the characteristic symptoms of dourine steadily increased. The animal continued to lose weight, the paralytic symptoms increased and extended, and neuritis, great weakness, and severe decubital gangrene, afterwards appeared.

A second and somewhat smaller injection of arsenophenylglycin was made on April 3rd, 1910, but also proved fruitless against the disease. Fröhner does not mention arsenicism in connection with this second dose. Throughout the nine months from September, 1909, to June, 1910, the course of the disease in this stallion was one of constant progression.

On the other hand, during the same period, the control stallion which had not received arsenophenylglycin showed a progressive and quite striking improvement. The paralytic symptoms gradually disappeared, and the general condition showed marked improvement (the horse gaining 130lb. in weight within three months), and finally, at the present time—June, 1910—the animal no longer shows any symptoms of disease, and is ridden daily.

Contrasting this unsuccessful result of the drug in the one case with the apparent natural recovery of the untreated control animal, Fröhner emphasises the necessity of extreme care in adjudicating upon therapeutical experiments, and the advisability of checking these by observations upon control animals. Isolated observations, undertaken with control experiments, are unsafe bases for the formation of conclusions.—*Berliner Tier. Woch.*

The Temperature of Healthy and Tuberculous Fowls and of Turkeys.

Klimmer and Saalbeck record *(Zeitschrift für Tiermedizin)* the results of their somewhat extensive observations upon this point. Within the space of a week they made 1,246 observations of the temperature in 15 healthy fowls, and found it to fluctuate between 104 F. and 108·5 F. In this connection it must be noted that temperatures of from 104 F. to 105·4 F., and of from 108·1 F. to 108·5 F., were only observed on isolated occasions, and in 1½ per cent. of the total number of estimations of the temperature. The prevailing rule was that the temperatures ranged between 105·6 F. and 107·9 F., and the average temperature was found to be from 106·7 F. to 107·6 F. The highest temperature in the day generally occurred between 12 noon and 2 p.m., and the lowest at the corresponding hours twelve hours later.

Age, sex, breed, and the ingestion of food showed no influence upon the body temperature.

Observations were also made upon 21 tuberculous fowls, 1,724 temperatures being taken, and the results agreed with those obtained from healthy ones. The same result also followed observations upon artificially infected tuberculous fowls.

Two turkeys were also made the subject of observation, 164 estimations of temperature being made. In these birds temperatures of from 103·1 F. to 106·7 F. were observed; the majority fell between 104·9 F. and 106·5 F. The temperature curve agreed substantially with that of the fowls.—*Berliner Tier. Woch.*

The Causal Agent of Swine Fever.

Dr. R. Rüther, of Frankfort-on-Maine, has published an interesting monograph of 63 pages, entitled "*Zür Sichtbarkeit des Schweinespesterreger*) (the visibility of the causal agent of swine fever." Should the author's own interpretation of his observations prove to be correct, the publication will be a very notable one in veterinary annals.

In recent years it has been generally admitted that the microbe of swine fever is filtrable and invisible to the ordinary microscope, for the injection into the pig of the filtrate of swine fever liquids in which microbial elements could not be discovered, has been regularly followed by the development of the disease. Sight has been lost of the fact that living elements passing through a filter are not necessarily germs arrived at the adult stage, but may be microbes at an earlier period of their life history. That is the case in swine fever, according to the author's view. He has discovered a microbe which, when completely developed, presents itself in the form of a vibrion, spirillum, or spirochæte, and he believes this to be the adult form of the organism causing swine fever.

The author successively describes the microbe itself, the best methods of staining and cultivating it, and the receptivity of experimental animals towards it. He also draws special attention to the part which the parasites of the pig (lice and worms) may play in the transmission of the disease.—*Annales de Méd. Vét.*

The Action of Barium Chloride upon the Domestic Ruminants.

Little has yet been written of the action of barium chloride upon ruminants, especially as regards its applicability in cattle practice. Ernst Oberwinter, of Schmalkalden, has therefore undertaken a long series of experimental observations of the drug's action upon cattle, sheep, and goats, administering it by the mouth, intravenously, subcutaneously, intratracheally, and finally by injection in the udder. Analyses of milk have also been undertaken to detect a possible elimination of the drug through the mammary gland. The investigations have led to the following important practical conclusions:

(1) Administered by the mouth, barium chloride influences the activity of the rumen, stimulating its contractions. From this action, the drug is indicated as a stimulant to rumination in all cases of indigestion in which that function is either diminished or suppressed. The intestinal excretion is not influenced by barium chloride administered orally. Abortion did not follow the oral administration of ʒiiss. of barium chloride to two cows in the last month of pregnancy, though in one case this dose was repeated after a lapse of fifteen hours.

(2) Chloride of barium injected *intravenously* has an effect upon the intestine of ruminants similar to that of eserine, and in no way inferior to that following the intravenous injection of barium chloride in the horse. The drug is therefore suited for use intravenously as a rapidly acting purgative for ruminants, especially for cattle. One constant symptom which was observed to set in immediately after the injection was licking movements of the tongue. Abortion did not follow the intravenous injection of ·45 gramme (about 6¾ grains) in a goat in the third month of pregnancy. Contrary to what is the case when barium chloride is given orally, the activity of the rumen is not influenced by intravenous injection.

(3) When barium chloride is *subcutaneously* injected, its action upon the intestine is only observed as a result of large doses. Increased sensitiveness is caused at the site of injection, and persists for a long time. Goats show violent symptoms of pain. The author concludes that the subcutaneous injection of the drug is not to be recommended.

(4) Injected *intra-tracheally* (in 10 per cent. solutions) in goats, barium chloride caused violent coughing and dyspnœic breathing, the latter persisting for some time. No intestinal action followed the use of even large doses, and the author concludes that the explanation is that the greater part of the drug was expectorated as a result of the symptoms just mentioned. He therefore advises against the intra-tracheal use of barium chloride.

(5) Injection of a watery solution into the udder is followed by a considerable resorption of barium chloride. [The author does not say either the dose or degree of concentration, or whether this method is commendable or not.—Trans.]

(6) Whatever the form in which it is employed, barium chloride has an action similar to that of digitalis. The frequence of the pulse is considerably reduced, the arterial blood-pressure raised, and the arteries rendered moderately tense. When toxic doses are given, all other effects can be referred to those upon the circulatory apparatus. In those cases in which the toxic dose does not cause death for some hours, the first symptom is a considerable diminution of the pulse-frequence with simultaneous marked elevation of the arterial blood-pressure and contraction of the arteries; afterwards the pulse-rate rises again (with an accompanying reduction of the blood-pressure) to its former level, and finally far exceeds this, with, at the same time, a progressive diminution of the pulse-wave. Death results in consequence of gradual cardiac paralysis.

On the other hand, in cases where the toxic dose is so great that death is very speedy—generally instantaneous—the action of barium chloride is to cause sudden cardiac paralysis. Further researches are necessary to decide how far barium chloride can be used (as suggested by Schædel and Tabora) as a cardiac agent and especially as a substitute for digitalis, which, according to the researches of Salvisberg, is inefficacious for ruminants.

(7) In many cases, the body temperature sinks synchronously with the retrogression of the pulse frequence. The fall of the temperature in these cases, as is also the case with regard to the similar action of digitalis, depends upon purely mechanical causes, viz., that through the increased blood pressure the blood is driven to the surface of the body, and a more rapid cooling of the blood thus takes place.

(8) As a rule the general condition of the animal is not disturbed by small effective doses of barium chloride. Large doses, however, cause systemic disturbances persisting for some hours; while doses large enough to be slowly fatal cause considerable systemic disturbance until death occurs. After some hours, in fatal doses, simultaneous paralysis of the limbs appears, followed by general paralysis. In cases in which death occurs rapidly, crying out, falling down suddenly, dyspnœa, and muscular spasms are observed.

(9) The instillation of even 10 per cent. solutions of barium chloride into the conjunctival sac does not produce a myotic effect.

(10) No elimination of barium chloride takes place in the milk.—*Berliner Tier. Woch.*

Healing of Wounds in Poultry.

Karl Gellman calls attention (*Allatorvosi I apok*) to the facility with which the wounds of poultry heal, and exemplifies this by relating the case of an Orpington hen, which had been bitten by a dog. The resultant wound was 7½ or 8 inches long, and extended from the head to the back; its edges were uneven and swollen, and the whole was covered with dust and dirt.

Gellman cleansed the wound surfaces with a weak solution of carbolic acid, and sutured the swollen edges with catgut. At first difficulty in swallowing was observed, as the sutures compressed the œsophagus in some places, but this soon disappeared. The healing of the wound proceeded without suppuration, till the same dog inflicted another open wound on the neck upon the hen. This wound was stitched by a maidservant with thread, and although suppuration appeared after two days, and the domestic treatment carried on was wholly without antisepsis, the wound (after being sprinkled with tannoform in its later stages) healed in 33 days.

Gellman therefore says that the healing of wounds in poultry is much easier than in the case of animals, and that even wounds involving great loss of substance, with additional infection, often heal without leaving a visible cicatrix.—(*Berliner Tier. Woch.*)

W. R. C.

LINCOLNSHIRE VETERINARY MEDICAL ASSOCIATION.

A meeting was held at the "Angel" Hotel, Peterborough, on Thursday, June 9th, Mr. J. Mackinder, F.R.C.V.S., presiding, in the absence of the President, Mr. T. Holmes, Bourne. There were also present: Messrs. G. Lockwood, Peterborough; G. B. Dickinson, Boston (Vice-Presidents); T. R. Bindloss, Long Sutton; J. W. Gresswell, R. W. Knowles, Wisbech; J. Mackinder, Peterborough: H. H. Nichols, Oundle; E. W. Parks, Wellingborough; T. A. Rudkin, Grantham; H. H. Truman, March; and C. W. Townsend, Long Stanton, Hon. Sec.

The minutes having been passed, the Hon. Sec. read the circular letter from the Royal Counties V.M.A. as to the suggested appointment of a Veterinary Officer to the Local Government Board, and on the proposition of Mr. Rudkin, seconded by Mr. Gresswell, the resolution forwarded by that Association was passsed.

Letters regretting inability to attend were read from Mr. T. Holmes, President; Messrs. H. C. Taylor, F. L. Gooch, J. Marshall, A. Lennox, Grasby, Hessle, Heckington, Sleaford; T. J. Keall, H. Westgate, F. H. Sugden, Hartley and Son, and others.

Mr. F. H. Sugden was duly elected a member, having been proposed at the previous meeting.

On the resumption of the discussion on the Proposed Amalgamation Scheme, Mr. Knowles proposed that an expression of opinion be withheld until after the meeting of the National Society.—Mr. Nichols seconded, and the resolution was carried.

LAMENESS DUE TO NERVE INJURY,

By Wm. Hunting, F.R.C.V.S.

I have chosen a group of lamenesses which depend upon loss of muscular power due probably to nerve injury. There are a number of these—some affecting the fore limb, some the hind. All show symptoms due to failure of certain muscles to perform their normal function, and all seem traceable to injured nerves. There is no rule without an exception, and as we consider these different lamenesses I shall be obliged to allow that the definite symptoms seen are not always traceable to nerve injury. It may in some cases be that the muscle itself is injured.

It is not my intention to treat these forms of lameness in a systematic or exhaustive manner. We may leave that to the text books. My aim is to open a clinical discussion which may draw from others some facts or observations of practical value to us all.

The first condition I will submit to you is what is called "shoulder-slip." This is a lameness of the fore limb characterised by a peculiar laxness of the shoulder which permits the head of the humerus or the point of the shoulder to move abnormally outwards. The movement takes place when the limb is perpendicular and weight is put upon the foot. The condition occurs suddenly, and the outward roll of the point of the shoulder is the first symptom noticed.

In a few days wasting of the spinata muscles follows, and this points directly to those muscles as being the seat of the lesion.

The question arises—Does this loss of power depend upon interference with the nerve supply or is it due to sprain. The muscles have shown no acute symptoms, and are only recognised as implicated by their loss of power or by the marked atrophy. Then the outward slip of the point of the shoulder appeared early—before anything was noticeable in the muscle, and so I am driven to believe that not sprain but paralysis must be the cause.

We see cases of wasting of the spinata muscles without the special symptom of shoulder-slip, and possibly they may be due to direct injury. They usually follow an accident about which the driver of the horse can give no very explicit account. It is said that the lesion is frequently seen in young horses at plough. My experience is too limited to say if this is correct.

If we accept injury to the supra scapular nerve as the cause, I suggest that the collar may have something to do with its production. This nerve is given off from the brachial plexus and might be injured by sudden violent pressure of the collar. It seems to be accepted that shoulder-slip has been seen as the result of collision with a tree. Now if a young horse ploughing were suddenly frightened and sprang into his collar, or if the plough came suddenly upon a big stone, might not the blow of the collar directly injure the nerve? The result of treatment—or of rest without treatment—is not always successful, but all cases are worth treating.

Time for repair seems to be the chief necessity. In many cases some atrophy of the spinata muscles remains as a permanent blemish. I have known cases in which no lameness resulted from regular work, although considerable wasting of muscle existed.

I assume we should all say that a horse with wasted spinata muscles was a technically unsound horse although trotting sound.

Another fore-leg lameness due to nerve injury is what is called "Dropped elbow." Under this term we recognise a lameness, the special symptoms of which are inability to bear weight on the limb and a malposition of the elbow which brings the point of the olecranon 5 or 6 inches lower than it ought to be. It appears suddenly, and, so far as my experience goes, in horses in harness. Cases have been described in which the horse was being ridden, and one in which the horse was galloping loose in a field after escaping from his loose box. Nearly all my cases occurred in double harness, but the injury may follow accidents of various sorts—including a fall of horse and cart into a sand-pit.

Dropping of the elbow, when no bone is fractured, can only occur as the result of paralysis of the triceps extensor brachii. It occurs so suddenly that we conclude the condition must be due to nerve-injury, and we are borne out in this opinion by finding no evidence of structural lesion in the muscle. If the foot be placed in position under the horse and the knee forced back till the leg is straight, the elbow resumes its natural position and the triceps muscles show no abnormality.

As the case progresses atrophy of the triceps becomes well marked, and this is quite in accordance with the assumption that nerve injury was the cause of want of power in the muscles.

The first published case, which was diagnosed during life, was sent to *The Veterinary Record* many years ago by Mr. Byerley, but Mr. Willis had, a year or more earlier, diagnosed and shown to veterinary friends one or two cases and their post-mortem lesions. Strange to say there is a well reported case of this lameness with the post-mortem discovery of fracture of the two first ribs in *The Veterinarian* for 1835, but the author seemed to miss the connection between the dropped elbow and the fractures.

Without asserting that all cases of dropped elbow are due to fracture of the first rib, I am quite confident that nearly all are.

It requires a post-mortem examination to make absolutely sure of your diagnosis in many cases of lameness. Some dropped elbows recover and we lose sight of them.

Mr. Willis has been able to keep in sight some of his cases for years after recovery and finally to have a post-mortem. I think I may say that in nearly every case he found such alteration or deformity of the first rib as to warrant the assertion that it had been fractured. I have myself been able in a few cases to see a post-mortem months or years after the case had recovered, and I have never yet seen a first rib that did not show signs of healed fracture.

But there are cases which show all the signs of dropped elbow and recover their soundness in a few days. How are these explainable? We may reply that fractures vary in extent, may even be partial—half through the rib. We may also, perhaps, allow that direct bruising of the tissues in proximity with the brachial plexus had occurred.

No dropped elbow follows a fracture of the lower portion of the first rib, it occurs only when the upper third of the bone is broken, and therefore it is possible to imagine an injury so low down as to just cause a temporary or slight injury to the radial nerve.

I have been shown photographs of cases which presented well marked dropped elbow and yet disclosed no fracture of the ribs to the practitioner who made the post-mortem.

It is said that the condition has been seen after casting horses for an operation, and that the symptoms passed off in a few days. Possibly such cases were due to direct injury to the muscles.

In all cases a dropped elbow must be due either to loss of power in the triceps, to fracture of the shaft of the humerus, or to a fracture of the olecranon. Putting aside the cases of fracture, a dropped elbow depends upon paralysis of the triceps. In nearly every case of such paralysis the radial nerve is injured, and in a large proportion the nerve is injured by a fractured first rib.

How does this fracture occur? I have a notion that the collar has something to do with it. All my cases have happened in double harness. In nearly every case no fall occurred—the horse either shied or stopped, and then sprang into his collar. He was immediately lame, and the leg hung pendulous from the elbow. It is worth noting, too, that the history of each horse was the same—he was a nervous, tear-away animal that would stop and shy and then jump into his collar violently.

Treatment and Prognosis.

Among other remarks made by Mr. Hunting as to treatment, he advised the use of slings in severe cases. Splints were useful whenever they could be applied. But perhaps nothing was better than prolonged rest and a run at grass.

Hind Limb.

There are two or three lamenesses of the hind limb due to paralysis of certain muscles. Probably there are some I have seen but not recognised. The hind leg of a horse is a most complex piece of machinery, every joint from stifle to foot being more or less dependent upon other joints for their normal movement, whilst groups of muscles interfere with or assist other groups in performing flexion or extension of the limb. A man must be a better anatomist than I am to understand the physiology of locomotion in the hind leg. Yet there are some conditions which all of us can recognise clinically, and some on which perhaps we have made useful observations.

Crural paralysis has often been described. It is, in the hind leg, analogous to dropped elbow in the fore. Normal extension of the stifle requires full activity of the crural muscles, and when they are paralysed no weight can be sustained on the limb because the stifle drops. If we use the term dropped elbow to a condition of the fore limb, we might, with equal reason, speak of dropped stifle in the hind. Probably crural paralysis is most frequently seen as a sequel of hæmoglobinuria, but it also appears in horses which have not had that disease—possibly from direct injury to the nerves supplying the muscles in front of the femur. Prof. Share-Jones has pointed out that more than one of those paralyses causing lameness may be due to the presence of tumours, aneurisms, or even abscesses pressing on the nerves.

Partial crural paralysis is more difficult to diagnose than the severer cases, because there is not the conspicuous inability of the muscles to support the stifle. All that one sees is a slight "giving" of the stifle when weight is placed upon the foot. This downward yielding of the joint can, I think, be always differentrated from any movement due to pain.

Tibial paralysis is, so far as I know, always shown by want of power in the extensor pedis. This leads to excessive flexion of the fetlock and the horse brings the joint almost to the ground, whilst the foot is turned up so that the front of the wall touches the road surface. Perhaps I ought to have spoken of this lameness as paralysis of the extensor pedis muscle, and left the

nerves affected unnamed. But I have called it tibial paralysis because the symptom by which we recognise it is well shown in some cases as the result of anterior tibial neurectomy.

Injuries, such as kicks, might easily reach the tibial nerve just behind and below the stifle, and the wonder is that more cases of paralysis of the extensor pedis are not seen. I don't know why, but my experience is that these cases are not very amenable to treatment.

There are other cases of local paralysis causing lameness to the hind limb, but I have no personal experience of them. Some interesting information is to be found concerning them in Dollar's translation of Möller's Surgery, and also in Professor Share-Jones Surgical Anatomy, where the illustrations assist one in following the descriptions.

There is just one more of these cases, which I have seen, and which I will refer to—obturator paralysis. Possibly I have seen cases and failed to diagnose them, but since my friend Mr. Willis showed me a typical case I think I have not missed any. The distinctive symptom is that the limb is abducted during progression. The abnormal movement is best seen at the trot, and the abduction takes place immediately the foot leaves the ground to be carried forward.

The abduction is due to want of power in the muscles inside the thigh—principally the gracilis. These muscles obtain their nerve force from the obturator nerve, which you will remember leaves the pelvis through the obturator foramen. Fractures of the pubis are not uncommon, and when the fracture is an oblique one extending towards the ilium the nerve may be implicated. The most common fracture of the pubis is through the bridge of bone immediately in front of the obturator foramen. This does not cause obturator lameness. The fracture must be further outwards to implicate the nerve. At first there is ordinary lameness due to the fracture. Then, as the callus increases in size, pressure on the nerve causes the abduction movement characteristic of obturator paralysis. In course of time the callus diminishes and the nerve ceases to be injured. The seat of the lesion is easily examined per rectum, and as a rule the lameness gradually subsides as the callus lessens.

In some cases there is atrophy of the muscles inside the thigh, but it is not usually very noticeable.

Next to the diagnosis of these cases comes prognosis in point of usefulness, and then treatment.

Diagnosis is tolerably easy in typical cases, but in all cases of injury it is difficult to get a good description of the accident, and frequently all knowledge of accident is denied. More than one injury may result from an accident, and symptoms may be very much mixed, so as to hide for a time the symptoms which would be easily recognised if it stood alone. As to prognosis these cases are not so common as to allow our individual experience to say how the lameness will terminate, or how long it will last. I hope to-day that we may throw a little more light on the subject by eliciting the experience of those present.

As to treatment it can only be palliative. The important requisite is time. Whether medicines can help I know not—some like strychnine—but I do think local blisters are useless.

Discussion.

The Chairman said they had had a very practical address. He had a case of a mare which slipped with a load of manure. He examined per rectum, and discovered a fracture of the pelvis. Now, sometimes she got sound for a month and then went lame again, and it was a very disappointing job. You could find the bone deposit in the pelvis.

Mr. Rudkin said there was something in the suggestion that loss of muscle power was due to nerves. He was once hunting when he found his mount could not move its shoulder. He cured him by putting him in the stable. He said to his brother "You will have to drive me home," but on returning to the stable he found he was all right. He had injured the nerve of his shoulder. He afterwards got perfectly sound. As to shoulder slip, he got a lot of cases where young horses had injured themselves by knocking against gates etc. Mr. Hunting said don't apply a blister. You might give a horse unnecessary pain thereby, but you gave him rest, which, as Mr. Hunting said, was the great thing.

In reply to Mr. Hunting, Mr. Rudkin said it was possible that the collar often caused shoulder slip.

Mr. Knowles said that when Mr. Rudkin spoke of shoulder slip he meant atrophy of the antea postea spinatus. He had many cases in his district due to work at plough, whether in the line or in the furrow, but generally in the furrow, where the horse sometimes had one foot out and one in. He blistered them, rested them, and advised the owners when they were fit to work again not to work them in the plough, but to give them level work.

In answer to Mr. Hunting, Mr. Rudkin said it was generally the left shoulder that was affected.

Mr. Knowles: I have just had a case where the head of the humerus moved outwards, and there was atrophy of the antea postea spinatus. In my experience it is generally caused through working in the furrow.

Mr. Rudkin: It is usually with young horses who jump in the collar.

Mr. Hunting: It is curious that cases of dropped elbow are always with that sort of horses that tear away—spirited horses.

Mr. Rudkin mentioned Williams' teaching.

Mr. Hunting: Yes, it was sprain of the muscle he taught. The movement of the humerus is the first thing you notice, and you see the wasting of the muscle after.

Mr. H. H. Truman congratulated Mr. Hunting on his very valuable paper. He should like to mention a point about the wasting of the muscles. He had for a couple of weeks been buying horses in France. He looked at 500 or 600. Nothing was examined there in the ordinary way, but he saw several that had this condition, *i.e.* atrophy of the shoulder muscles. He thought they should look upon it more as a passive condition of the muscle. He had frequently seen the wasting of the hind quarter in mares after foaling. Frequently a mare foaled all right but could not get up, could not put its hind leg to the ground, and you saw a pronounced wasting of the gluteal muscles. He generally got one case a year like that. As to the broken rib, a client of his found a cart mare down in the stable after hearing a crashing noise. She got up, and she was found to have a pendulous elbow. He had her killed, and the post-mortem revealed a fracture of the first rib. She did it undoubtedly in rolling.

Mr. Bindloss agreed with Mr. Hunting that the wasting of the spinata muscles was often due to nervous disorder.

Mr. Gresswell mentioned a case where a horse that fell into a dyke overstrained himself and injured his nerves, bringing on lameness, but he recovered, and afterwards made three figures. He had another case where a horse getting out of a field through a partly open gate injured his shoulder. He was for some time lame. He had him put in a loose-box and stimulated the shoulder muscles and he was afterwards sold for a good sum. In elbow drop he was sure he should blister, it rested the limb to a certain extent, and brought on action both to the nerve and muscles. He said blister by all means when there was waste of muscle. They had had an excellent paper. He added that Mr. Hunting was the first to bring out *The Record*, and they as a profession were much indebted to him in many ways.

The CHAIRMAN said if, instead of using slings, a log was put round the fetlock, the muscles came up much quicker.

Mr. LOCKWOOD said that Mr. Rudkin's case of the hunter that went lame for two or three hours reminded him of a case at Lincoln. It was that of a cob which was so lame that it could not put one foot to the ground. They were afraid of a split pastern. They sent the float for it, and put it in the stable. Nothing was done that night, and next morning she was found to be right as anything. She went back to work in a week or ten days and remained all right afterwards. Speaking of the waste of the gluteal muscles, he once saw a colt with both gluteal muscles very much atrophied; you could almost feel the outline of the pelvis. This colt was kept at work and was to-day a very good worker.

Mr. G. B. DICKINSON recalled two cases in his experience where the animals, one a baker's cob and the other a brewer's dray horse; both were unable to move, and both showed a peculiar crossing movement of fore limbs. One he put on iodide of potassium and the other on salicylate of soda, and they both got perfectly sound, and went to work again.

Mr. TOWNSEND, in thanking Mr. Hunting for his excellent paper, suggested that rheumatism was sometimes the cause of shoulder lameness and particularly in hunters. He had frequently met with cases where absolutely nothing was to be seen and yet he was convinced the animal was lame in the shoulder. He did not believe all cases of rheumatism got better with exercise. In this respect he mentioned the case of the noted horse, Springbok, which this year ran fifth in the Grand National. Now there was not the least doubt but that this horse does actually suffer from rheumatism in various muscles. Mr. Hunting stated that horses no doubt suffer from rheumatic lameness, but the term itself covers a lot, and frequently comes in very handy.

Mr. GRESSWELL: How do you account for the fracture of the first rib?

Mr. HUNTING: I believe it is a direct injury from the collar.

The CHAIRMAN proposed a hearty vote of thanks to Mr Hunting for his paper. It was one of the most useful they had had. Some papers were theoretical; this was a practical one.

Mr. GRESSWELL seconded, and said he looked upon him and Prof. Gamgee as shining stars of the veterinary profession.

Mr. HUNTING, in reply, expressed his thanks, for the little discussion they had had showed that lamenesses which to some of them were uncommon, were to some gentlemen quite common. He thought it would be a very useful thing if some of them would contribute a paper occasionally upon interesting things they saw.

On the motion of Mr. Truman, seconded by Mr. Rudkin, a hearty vote of thanks was accorded the Chairman.

Mr. MACKINDER, in returning thanks, said he was in the Association when Capt. Russell was Chairman, and he and Mr. Gresswell were two of the original members.

An adjournment was then made for tea, and Mr. Mackinder's hospitality was much enjoyed, the gathering being a very successful one.

C. W. TOWNSEND, Hon. Sec.

The Eradication of Glanders.

At the County Hall, Spring Gardens, on Friday, 17th June, a conference was held of representatives from local authorities in the home counties to consider the question of means for the eradication of glanders, and of the desirability of conferring additional powers in the matter on local authorities. The conference, which was summoned at the instance of the Public Control Committee of the London County Council, was private.

CAPE OF GOOD HOPE VETERINARY MEDICAL ASSOCIATION.

The fourth annual general meeting was held at the Central Hotel, Longmarket Street, Capetown, on May 13th, at 8.15 p.m. Present: Messrs. J. D. Borthwick, President; R. W. Dixon, Vice-President; R. Paine; Capt. Burridge, J. W. Crowhurst, Hon. Secretary and Treasurer.

The TREASURER submitted the financial statement.

The office-bearers were elected for the coming year:

President.—Mr. J. D. BORTHWICK, M.R.C.V.S.

Vice-President.—R. W. DIXON, M.R.C.V.S.

Hon. Sec. and Treas.—R. W. PAINE, F.R.C.V.S.

Council.—Messrs. J. Buck, M.R.C.V.S.; J. Forrest, M.R.C.V.S.; G. W. Freer, M.R.C.V.S.; J. W. Crowhurst, F.R.C.V.S.; W. Robertson, M.R.C.V.S.; and the representative of the Army Veterinary Corps stationed in Capetown.

A letter was considered from the President and members of the Natal Veterinary Board, covering a copy of a petition received from the farriers of Durban, and asking the Association for an expression of opinion upon the petition. The petition referred to the suggested action of the aforesaid farriers in approaching the Legislative Assembly in order to compel all farriers to undergo an examination (as may be required by the Board) or the registration of candidates prior to their being allowed to practise their calling in the Colony.

Mr. CROWHURST proposed, and Mr. Dixon seconded, the following proposition, that the Secretary be instructed to reply as follows: "That this Association is of opinion that it is as yet premature to suggest the introduction of legislature by means of which any farrier would be prevented from practising his calling without first passing a qualifying examination. The Association, however, is in full sympathy with the examination of farriers if conducted on lines similar to those at present in vogue in the British Isles."

A letter was read from the Secretary of the Natal Veterinary Medical Association noting that the Association was formed on Nov. 19, 1909, and enclosing copy of the proseedings of their first meeting, together with the rules and objects of the Association, and stating "that he was instructed to approach the Association conveying their greetings and asking for an expression of opinion as to the desirability of reciprocity between the various Veterinary Medical Associations in South Africa."

It was resolved that a letter be forwarded to the Natal Veterinary Association expressing this Association's best wishes for their future progress, and sympathy with the proposed amalgamation, which is at the present time being considered by the other existing societies.

A letter was considered from the Medical Association relative to a suggested Federated African Veterinary Association which letter had previously been submitted to the various members of the Cape of Good Hope Veterinary Medical Society asking for an expression of their opinion of whether they would first favour the amalgamation of the existing societies in the British States into a Federated British Society or whether they would favour the formation of a Federated African Association at once. Replies had been received from Messrs. Robertson, Goundry, and Robinson only.

Mr. DIXON proposed, and Mr. Crowhurst seconded, the following proposition, which was unanimously carried: "That this Society is in favour of amalgamating the Societies in the British South African States into a Federated British Society prior to forming a Federated African Association."

It was then resolved that no subscription should be claimed by the Association for the coming financial year.

A letter was read from Mr. Robinson relative to a meeting being held at Port Elizabeth, to which the Secretary had replied.

A letter was also read from Mr. Paine relative to more enthusiasm being put into the work of the Association by its different members.

A letter was read from the Transvaal Veterinary Medical Association relative to the Veterinary Surgeons Ordinance stating that it was inadvisable to introduce the proposed ordinance at the forthcoming session of the Transvaal Parliament, but that when Union took effect it would be necessary to introduce an ordinance of a similar character for the whole of South Africa. That they proposed to adopt the following course:

(1) That the medical profession should be approached with a view to their allowing us to incorporate a Veterinary Surgeons Ordinance with a Draft Union Medical Ordinance which is being prepared by the Medical Association defining the rights and privileges of medical men, dentists, and pharmacists.

(2) That the Veterinary Societies of the other Colonies comprising the Union be communicated with and asked to combine with us in the matter, and, should they agree, to approach the Medical Association in their own Colony with regard to the course suggested above.

They asked for an expression of the Association's opinion with regard to the matter.

The following motion was proposed and carried: "That the Association is not in favour of approaching the medical profession and consider that an Ordinance separate from that of the medical profession would be quite as potent. The only apparent advantage of the proposals, economy, is likely to prove disadvantageous, considering the relative positions of both professions upon such questions as Dairy Inspections, Meat Inspection, and other matters appertaining to Public Health in connection with veterinary science.

A wire was read from the Transvaal Veterinary Medical Association asking for the presence of a delegate at their meeting on May 18th. The Secretary was instructed to wire regretting inability for a delegate to attend and stating that the Association was not in favour of approaching the medical profession with regard to the matter above mentioned.

A hearty vote of thanks to the President and late Secretary then terminated the meeting.

Receipts.

(April 30th, 1909—May 13th, 1910).

	£	s.	d.
Cash in Hand—Post Office Savings Bank	129	18	0
One Subscription, 1908	2	2	0
Interest to June 30th, 1909	3	10	2
	£135	10	2

Expenditure.

	£	s.	d.
Typing third Annual Report, Notices, and Letters, Dec., 1906—May, 1910.	1	15	6
Postage and Stationery		3	0
Balance, Post Office Savings Bank	133	11	8
	£135	10	2

DISEASES OF ANIMALS ACTS 1894 TO 1903, SUMMARY OF RETURNS.

Period.	Anthrax.		Foot-and-Mouth Disease.		Glanders (including Farcy)		Counties Affected	Sheep Scab.	Swine Fever.	
	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Animals Attacked	Out-breaks	Out-breaks.	Slaughtered *
GT. BRITAIN. Week ended June 25	29	40			6	37	Gloucester 2	1	43	252
Corresponding week in 1909 ...	21	22			8	37		1	42	389
Corresponding week in 1908 ...	16	24			16	36	London 2	1	66	498
Corresponding week in 1907 ...	17	18			15	48		4	70	292
Total for 26 weeks, 1910	814	984			181	508	Middlesex 1 Monm'th 31	315	731	6508
Corresponding period in 1909 ...	720	956			299	1171		456	911	8226
Corresponding period in 1908 ...	618	815	3	112	410	1334	Lanark 1	629	1192	6068
Corresponding period in 1907 ...	608	809			470	1146		400	1343	6245

Board of Agriculture and Fisheries, June 28, 1910.

Parasitic Mange (outbreaks)

IRELAND. Week ended June 18	...	...	...	...	...	...	...	...	...	38
Corresponding Week in 1909 ...	...	...	...	...	...	...	1	2	6	91
Corresponding Week in 1908 ...	...	...	...	...	...	...	3	1	3	52
Corresponding Week in 1907 ...	...	...	...	...	...	...	2	1	...	44
Total for 25 weeks, 1910 ...	4	7	...	...	1	2	36	331	52	1282
Corresponding period in 1909 ...	3	3	...	...	...	...	47	280	43	697
Corresponding period in 1908 ...	4	7	...	...	...	...	24	264	100	2008
Corresponding period in 1907 ...	1	3	...	...	1	1	50	167	62	1147

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, June 22, 1910

NOTE.—The figures for the Current Year are approximate only.

* As Diseased or Exposed to Infection

PARLIAMENTARY.

In the House of Commons on Monday, June 20.

The Board of Agriculture.

Mr. Bathurst (Wilts) congratulated the House and the agricultural community on the fact that there was now an official representative of the Board of Agriculture in the House to whom appeal could be made on agricultural matters with some chance of the Board taking immediate and official cognisance of them. He also congratulated the hon. baronet opposite on being put in a position more suitable to the enormous importance of the great industry he represented in the House. All that was said last week with regard to the Local Government Board applied with much greater force to the Board of Agriculture. Not only were the President and officials of the Board remunerated on a very much lower scale than the officials of other Departments, but the Board was housed in three separate buildings wholly unworthy of the work now being carried on. During the coming year the Board would celebrate its 21st birthday, and he hoped the Government would make it a present of suitable buildings. The present grant to the Board from the Imperial Exchequer for all purposes, including the maintenance of Kew Gardens, amounted to £173,169, and of that sum the paltry amount of £12,300 only was devoted to the most important subject of agricultural education. In Ireland £234,827 of public money was being devoted to agricultural purposes, or about £50,000 more than was expended in Great Britain. The French department received from the Exchequer £1,200,000, and on agricultural education alone £180,000 was being expended; and even in the small European State of Wurtemberg the expenditure was £72,600, out of a total revenue of £4,500,000. He congratulated the Board on the reduction in the outbreaks of glanders and sheep scab, pointing out, however, that while glanders had been stamped out in Ireland it was more or less persistent in this country. The regulations of the Board in respect of sheep scab were onerous, and at some periods of the year they injuriously affected the health of our flocks. Would it not be possible to have two sheep dippings in the year, say in the early summer and early autumn, thereby obviating the sheep dippings in the cold months of the year? Winter dippings in a poisonous liquid were hurtful to the ewes, and sometimes they involved the danger of the poisoning of the lambs.

Swine Fever and Anthrax.

He was glad that a Committee on swine fever had been at last set up, and he suggested the issuing of an order providing that all animals within the region of contagion from disease might be slaughtered instead of being isolated. In this way the number of cases of swine fever would be reduced by 50 per cent. in the course of 12 months. Slaughter rather than isolation was the most effective method of substantially reducing swine fever. He wanted to know also whether the fact had been brought before the attention of the Departmental Committee that in parts of Western England where the cloth industry was carried on there was a recrudescence of the swine fever disease. Unless the harassing restrictions were mitigated it would become impossible for the small agriculturist to carry on pig-rearing with any possibility of success in the future. Calling attention next to the alarming figures in respect of the spread of anthrax, he said that the disease was found in from 16 to 18 counties at the present time, and cases were forthcoming to show that persons attending cattle or engaged in the slaughterhouses were frequently infected. The time had come when the Board should take more strenuous measures to stamp out the disease or an inquiry should be instituted. It had been pointed out to the Board that anthrax in Wiltshire was traceable to imported feeding-stuffs and to foreign skins containing anthrax germs. He was anxious to know also whether the attention of the Board had been drawn to the fact that the number of skins of cattle infected with the warble fly was much on the increase. He sincerely hoped that no prejudices as to the possible increased cost of meat would prevent the Board from taking a very firm attitude in refusing to remove the embargo on the importation of Argentine cattle so long as there was any trace of foot-and-mouth disease in that country. He asked that early legislation should be introduced to put all dairy farmers on the same footing in their treatment by municipalities, and to secure unanimity of administration so far as impure or diseased milk was concerned.

Tuberculosis.

He was glad that the Government Milk Bill did not become law because it was founded on the third *interim* report of the Commission which was not based on the experiments conducted or the evidence submitted. If on the strength of that report they were going to have a Milk Bill putting most harassing restrictions on the dairy industry it would be a great injustice to the agricultural community and the price of milk would be a very serious matter to the poor of the country. He was convinced that the danger arising from even tuberculous cattle had a very small effect in bringing about the disease in the large urban centres, and that a much more serious matter was the increasing scarcity of good milk to be obtained at a reasonable price. It was perfectly well known that tuberculosis was not hereditary either among human beings or cattle, and milk was safe unless the animal was suffering from a diseased udder or was physically emaciated by the disease. He viewed with alarm the time when officious and uninstructed officials of the urban authorities would go into healthy districts and condemn right and left not only the cattle-sheds and byres but also the cattle because they considered them a danger to public health. He congratulated the Board upon setting up a Departmental Committee to consider how the export trade in cattle, horses, and other farm produce could be developed with foreign countries; and pressed on them the desirability of taking steps, possibly by imposing very serious penalties, to put a stop to the improper use of the tuberculin test in the case of pedigree cattle intended for exportation to the Argentine and elsewhere. Argentine buyers had been alarmed, not unreasonably, at the extent to which this fraud had been going on. He would like to see very heavy penalties imposed on those who improperly used the tests.

During the last 27 years there had been a reduction in the annual value of agricultural land of over 17 millions of money. That was a state of affairs unparalleled in any other country in the civilized world. At present in dealing with agricultural problems we merely touched the surface. He hoped that in the early future the Government would set up a Royal Commission to inquire as rapidly as possible into the underlying reasons of the exodus of the agricultural population and the means of keeping that population on the land in a condition of prosperity. They must put fiscal and other prejudices entirely out of their minds if they were to deal fairly with this most serious of national questions.

Sir W. Collins expressed satisfaction that it had been decided to appoint a Departmental Committee to inquire into the subject of swine fever and ascertain whether more satisfactory measures could not be taken for dealing with the disease. In dealing with diseases it was necessary to base administrative procedure on the latest scientific opinion. Unfortunately there were cases—tuberculosis for instance—in which opinion had been known to vary within wide limits. In regard to

swine fever, foot-and-mouth disease, and pleuro-pneumonia bacteriology had gone back as to the organism which could be assigned as the cause of the disease. He had hoped that those diseases would be made the subject of more elaborate scientific investigation. While it was usual to lay stress upon keeping up the rigid exclusion of live cattle imported from infected countries, it should be borne in mind that the proscribing of a whole country might be too wide a measure. (Hear, hear.) The last outbreak of foot-and-mouth disease near Edinburgh was promptly dealt with by the Board. It was said to have been due to imported hay from Holland, and he wished the cause had been followed up more fully. He could not help thinking that there ought to be a more recognised system of international investigation and more exhaustive search made for the particular locality in which the disease broke out, so that a strict cordon might be placed round that locality without necessarily covering a large country like Argentina. (Hear, hear.) He did not think that science justified such wholesale procedure, but he hoped they might be told that it was intended to institute more exhaustive and thorough inquiry into the diseases of animals, and that by arriving at a more definite opinion as to their causes our administrative measures would be made more effective for diminishing them. (Hear, hear.)

Mr. J. O'Connor (Kildare, N., Nat.) spoke against the removal of the present embargo on the importation of foreign cattle, and quoted statements made by the late Sir William Butler and by Sir Horace Plunkett in support of his contention that if the restriction were removed it would be impossible to police the thousands of miles of border between the United States and the Dominion of Canada so as to safeguard this country from the danger of having diseased cattle imported from America through Canadian ports. He also quoted an extract from a speech made by Lord Onslow after a declaration by the late Sir Henry Campbell-Bannerman in favour of reopening British ports to Canadian cattle. "Such a step," Lord Onslow said, "would be most impolitic and dangerous. Not so many years ago many prosperous English and Scottish cattle breeders, who believed they were perfectly immune from animal disease, had sudden ruin brought upon them through the importation of a few diseased animals. In 1892 there was an embargo placed on cattle coming from various countries. One animal, however, affected with pleuro-pneumonia, by some mistake was allowed to pass through, and to trace that single case cost this country £15,000. Did any one think the Government were going to introduce legislation which would reopen such a risk as that? Nothing had happened since that speech was made to alter the circumstances in which the present embargo was maintained.

Mr. F. E. Smith (Liverpool, Walton, Opp.) said the case for the removal of the embargo was based on the imminent danger which the retention of it threatened, or might threaten, to the meat supply of this country. The chief difficulty arose in the supplies of beef and veal from abroad, the danger of disease being not so great in the cases of mutton or pork. He would therefore confine himself to the question of the supplies of beef and veal, and in regard to them the position had greatly changed within the last four years. An examination of the report of the Departmental Committee showed that the home supplies of beef and veal amounted to three-fifths of the total amount required. He did not suppose that anybody who had studied the recent history of the question would be bold enough to predict that the home supply of beef and veal was likely to be increased. The number of cattle in the country had fallen from 4,272,000 in 1906, to 4,149,000 in 1909. The remaining two-fifths of the home demand was made up by the importation of live cattle—which were immediately slaughtered at the ports—from Canada and the United States; and the importation of chilled meat and frozen meat from the United States, South America, Australia, and New Zealand. There had been a large reduction in the supplies of live cattle. He agreed that it would be idle to ask the Government to remove the embargo while there was a liability to contagion. A very able Committee which considered this question in 1908 come to the conclusion that the length of the voyage from the United States, short as it was, afforded such a guarantee against contagion that there was no real menace to English interests, and that it would be irrational to extend the embargo to all the States of America because there had been an outbreak in one of them. If that were so in the case of the United States, *a fortiori* the guarantee must exist in the case of live cattle from Argentina, the voyage from which occupied a month. That destroyed the whole case for the maintenance of the embargo, so far as Argentina was concerned. An arbitrary distinction which could not be sustained had been established between live cattle and dead cattle. The latter were equally capable of spreading infection, and in the case of live animals there was the additional guarantee that they had to be examined at the port of debarcation. There were many parts of the country in which widespread distress was occasioned by the maintenance of these restrictions, and unless there was an apprehension as to the safety of the live stock of the country, which ought to be treated as paramount, he left the question to the hon. baronet in whose power it was to relieve the distress. He moved the reduce the vote by £100.

Sir E. Strachey (Somerset, S., Min.) said that as the hon. member had moved the reduction of the vote it was his duty to combat some of his assertions which were not in accordance with the circumstances. He admitted that there was a very strong feeling on the subject in quarters of the House not confined to one side. He would remind the Committee that foot-and-mouth disease existed in this country for a great many years, was epidemic in character and constantly breaking out. It was first recognised in 1839, and was very prevalent in 1840-4. From 1849 to 1852 it spread through the length and breadth of Great Britain. It occurred again in 1861, when there was a serious outbreak among pedigree cattle in the Royal Agricultural Society's yard, and it broke out again at the Smithfield Show and went on continuously till 1865, when there was a lull. In 1871 it was prevalent not only in this country but in Ireland. One of the arguments of the hon. member was that the disease was very easily controlled, but all agriculturists would agree that it was easily spread not only by the animals themselves but also by human beings who had been in contact with them. He had a case on his own estate in which a farmer went into a market ten miles away and carried the infection back to his farm. In 1900-01 there were 33 outbreaks, when 2,039 animals were slaughtered. The most recent outbreak was that in Edinburgh in 1908, which gave the Board very great anxiety; but thanks to the efficient way in which their officers acted and to the co-operation of the municipal authorities it was stamped out by the slaughter of 244 cattle at a cost of £4,000. That outbreak was introduced by hay imported from the Netherlands, since when the Board had forbidden hay and straw to be brought from countries where foot-and-mouth disease existed.

Cost of the Disease.

The question of cost was a very material one. The loss to the agriculturists owing to the outbreak of 1871-2 was estimated at nearly £13,000,000, and in 1872 the Herefordshire Chamber of Agriculture showed that the loss caused to the country was £155,226. In the country alone it was estimated that there had been a loss of £155,000. In addition, there was the general loss to

agriculturists to be considered through trade being upset and business brought to a standstill. The price of milk would undoubtedly go up. He had already mentioned the case of Edinburgh. The cost there was £4,000 for compensation apart from the expenditure on administration. Hon. members who were in the House at the time would remember the outcry there was on account of the restrictions on the movement of cattle in or out of Edinburgh. The consequence of that was that the price of beef went up and trade was dislocated. No sooner had that outbreak taken place than Ireland issued an order prohibiting the importation of stock from this country. Some local authorities also prohibited entirely the introduction of stock from Scotland, or imposed very severe restrictions. Argentina, which took a large number of pedigree cattle, had also immediately prohibited the importation of stock from this country, though the order was afterwards relaxed as regarded England, but maintained for Scotland. Most countries imposed restrictions for six months in regard to cattle coming from a country where foot-and-mouth disease existed. There might be only one cow suffering from the disease, yet our exportation of pedigree stock might be stopped for six months and our trade destroyed. The argument that we might restrict the disease was therefore of no use.

Above all others in this country small holders required protection from the effects of foot-and-mouth disease, because they were not able to withstand the serious loss caused by an outbreak. That was particularly the case when a small holder held his land from a county council, because such a council had no power to remit rent as had been done in many cases by private landowners. (Opposition cheers.) The refusal of the Board of Agriculture to withdraw the embargo was justified by the circumstance that the disease had broken out in Argentina, and there was no possibility of the embargo being withdrawn. The Board did not know how far the outbreak in Argentina might develop, and they would watch the future very carefully.

Mr. Long (Strand) said he cordially agreed with, and rejoiced at, the conclusion at which the Government had arrived as to the maintenance of the embargo on the importation of cattle. We had an enormous advantage over other countries inasmuch as our land was an island, and if we chose to impose restrictions we could assure for ourselves, as we had done, an absolutely clean bill of health. The value of that service to the stockbreeders of the country it was impossible to exaggerate. Those who asked for the removal or modification of the restrictions had never attempted to show that the free introduction of Argentine cattle for slaughter here would materially affect the meat market of this country. Though the restrictions might not be logical, their operation had made the cattle of this country healthy, and had given an impetus to the cattle-raising industry. What was there to show that the removal of these restrictions would not destroy that industry? It would certainly strike a severe blow at the prosperity of Ireland, where the cattle industry was one of the most valuable industries existing at this moment. The increase in the price of meat was not, he believed, traceable in any considerable degree to the restrictions; it is rather due to the increased home demand in countries from which we had been accustomed to draw supplies. To justify a demand for the removal of the restrictions it was necessary to show that we could get a sufficient benefit from foreign imports not merely to supply present needs but to fill the additional gap which would be caused if the stock-raising industry were deprived of the confidence which it now enjoyed.

In the House of Lords on Monday, June 20.

Diseases of Animals (No. 2) Bill.

This Bill was brought up from the Committee and read a first time.

In the House of Lords, on Monday, June 27.

Cattle Food Prosecutions.

Lord Clifford of Chudleigh asked the President of the Board of Agriculture why the consent of the Board required by the Fertiliser and Feeding Stuffs Act, 1906, Section 6, Subsection 3, was withheld in a case where the official analyst appointed by the County of Devon found that in the sample of cattle food in question there was 40 per cent. of wood sawdust, and the county wished to prosecute. He said the question was one of very considerable importance to all agriculturists, and brought out very strongly the objections to limiting the power of county councils to prosecute under the Act. In his opinion there must be an amendment of the Act. When the cattle food in question was analysed it was found to contain 40 per cent. of sawdust. The invoice sent with the article only contained a statement as to the quantity of the foodstuff, but a printed slip accompanying it said this particular food was a mixture of pure cellulose and cane sugar. It was quite evident the county analyst was right in saying that a large proportion of the compound was sawdust. The point he wished particularly to bring before the House was that this entirely new substance was thrust upon the market without any recognised certificate as to its composition or its food value, and when the Devon County Council, on behalf of the agriculturists of the county, endeavoured to test whether it was valuable as a feeding stuff, the Board of Agriculture refused their consent to a prosecution. By this action the Board of Agriculture, having no power to decide the matter themselves, having no power to decide the matter themselves, had barred the only means of deciding the question. (Hear, hear).

Earl Carrington, in reply, said the sanction of the Board of Agriculture was asked to a prosecution under Section 6 of the Act. The Board could not give such consent until the part of the sample retained by the analyst had been analysed, and a certificate of the analysis given by the Chief Analyst. The law had been carried out, for this had been done. The Board did not find that the invoice or description was in any way false, and further examination of the material did not confirm in all particulars the statement made by the Devon analyst. The mixture contained molasses obtained from sugar-cane, and some absorbent material was added whereby a sort of powder was obtained which was sprinkled over the hay or feeding stuff, a departure from the practice of sprinkling with water. The absorbent material was no doubt derived from wood (Laughter); there is no doubt at all it was saw-dust, which had undergone some chemical treatment whereby it became to some extent digestible. (Laughter). To laymen like most of us this seems a somewhat extraordinary statement, but this particular food must be classed with other sugar foods the absorbent material of which was of little or no feeding value. The Board were taking steps to investigate further the composition of this substance and its suitability as a feeding stuff. This was the answer to the question. The law must be taken as it stood. There had been complaints that the Board had too freely sanctioned prosecutions, but they had endeavoured to act impartially as between agriculturists and traders.

In reply to further questions from Lord Clifford of Chudleigh and Earl Fortescue,

Earl Carrington said he believed that the feeding quality of cellulose was not great, and not absolutely worthless, and he would be glad to go further into the points raised.

In the House of Commons on Monday, June 27.

Army Vote.—Horses.

Mr. Haldane: I come to the horses—one of the most controversial subjects with which we have to deal. There are so many experts, all with different plans, that

I congratulate myself on not being an expert. I have none the less given attention to, I think, every scheme that has been put forward. I would entreat the Committee to let us do one thing at a time. The first is to find out how many horses we want, and how many horses there are in the country. I need not trouble the Committee with the figures in detail, but I have the results of a careful analysis of the police census. Excluding horses under four years old, stallions, and brood mares, there are over 1,600,000 horses available in Great Britain and Ireland. These we have analysed as heavy draught, light draught, and so forth. I do not estimate that all these horses would be useful. (Opposition cheers.) So I write them down to a figure of, say, 500,000. The question is what is the next step to be taken. We have worked out on the basis of the scheme which I explained to the Committee when the Estimates were before the House last March, the quotas which each county would be called on to produce on mobilisation. These we have not published yet, but presently we shall communicate them to the County Associations, and then will be the time to see what the work is that is to be done. It is no use discussing these things in the abstract, nor, until you get the question in the concrete, making gloomy prognostications on the one hand or over-confident prophecies of success on the other. What we have to do is to put the problem to the County Associations, and that we hope to do in a short time. The only thing quite certain is that there are still three or four times as many good horses suitable for Army purposes as are necessary for mobilisation. I do not forget that mobilisation is not the only thing. There is wastage of war, which is another and very serious matter to be considered ; but still the number of horses in sight is sufficient to provide for that also in the case of any ordinary war. Until the problem has been presented in the concrete it is impossible to say whether this scheme will or will not do. We want to make the plan succeed, but my experience has been hitherto that one is extremely apt to run away on plans which involve the spending of public money far beyond what really would have been necessary if you had known what you were about when you started, and that is why I want to go very cautiously in this matter. Apart from this Lord Carrington has a scheme with the War Office on behalf of the Board of Agriculture, under which the War Office will purchase three-year-olds to be bred from registered mares and suitable stallions.

Sir S. Scott (Marylebone, W., Opp.).—At what price?

Mr. Haldane: I think the right hon. gentleman suggested you might buy a three-year-old for about £30, and I think we have something of the sort in our mind.

Mr. C. Bathurst (Wilton, Opp.).—Will those purchases always be made direct through the farmer?

Mr. Haldane: It is obvious that the purchase must be from the breeder. These are horses bred from mares and stallions which are the subject of public grants.

The Winchester Corporation Meat Case.

Another stage in the case of Hobbs v. The Winchester Corporation was reached in the Court of Appeal, when the Corporation, on Thursday, June 17, commenced their appeal against the decision by which they were ordered, in the King's Bench, to pay Mr. Hobbs £918 by way of compensation.

The circumstances of the case may thus be recalled. Mr. Hobbs, a butcher and contractor, of Southampton, held a War Office contract to supply meat to the troops at Winchester Barracks and elsewhere. One particular consignment was not strictly in accordance with the terms of his contract, and it was accordingly rejected. The Winchester Corporation seized some of the meat, which was condemned, and prosecuted Mr. Hobbs, but the case was decided in favour of Mr. Hobbs. A claim for damages was subsequently made by Mr. Hobbs under Section 308 of the Act, which runs:

> When any person sustains any damage by reason of the exercise of any of the powers of this Act in relation to any matter as to which he is not himself in default, full compensation shall be made to such person by the local authority exercising such powers, and any dispute as to the fact of damage or the amount of compensation shall be settled by arbitration.

The decision of the arbiter was favourable to him, the Umpire awarding an amount of £1518 11s. 9d. for various items of damages. Then the point was raised as to whether the amount could legally be claimed, and upon this Mr. Hobbs, backed, of course, by the National Federation, took the case to the High Court to recover the sum less £600 damages for loss of profits in consequence of the determination of War Office contracts. Mr. Justice Channell, who heard the case, held that the amount thus claimed—£918—should be paid over by the Winchester Corporation.

Against that decision the Winchester Corporation now appealed.

Judgment.

The Master of the Rolls said the case raised a question of undoubted importance as to the true meaning and effect of Sections 116 and 117 and Section 308 of the Public Health Act of 1875. First it would be convenient to indicate what was the apparent object of those sections. It was to prevent the danger to the public health by the sale of meat for human consumption in a state and condition when it was dangerous to health. The scheme of the Act was this. An inspector was allowed to go into a butcher's shop and seize meat if he considered it to be unfit for human food. He might at once obtain an order from a magistrate for the condemnation of the meat. That was not all, however. He could bring a summons before the magistrates against the butcher, and in which case the magistrates were able either to impose a penalty or imprisonment. There was in the Act a provision which provided for compensation to be paid by the local authority if, in the exercise of powers under the Act, it caused damage to any individual. That being the scheme of the Act, it was apparent that the policy of the Act was for the protection of the public interest. It was done on public grounds. Section 116 said the meat might be inspected, and Section 117 said it might be condemned and destroyed. The Section 308 said that where damage was done to an individual, where the individual was not in default, there should be full compensation. Now, in this case, Mr. Hobbs was a butcher who had a contract with the military authorities. The terms of the contract were not material to this case, but it was as well to mention them. Under the terms of the contract Mr. Hobbs was bound to supply meat from animals of a certain age and of good quality. He was found to have supplied a cow that was twelve years old, and from which the udder had been removed, and it was, in fact, unfit for food. The inspector seized the meat, and the magistrates did not condemn Mr. Hobbs, who was acquitted. Then came the claim for compensation under Section 308, and the Arbitrator made an award in the form a special case. This award stated that a portion of the meat was diseased and unwholesome, but that the rest of the carcase was good, and further that Mr. Hobbs was unaware that any portion was diseased or unwholesome, and that it was not possible for his servants or agents to have known that it was diseased or unwholesome. It was shown by the award that the fact that there was disease could not have been discovered by any examination which Mr. Hobbs, or his servants, could have reasonably made, though at the same time Mr. Hobbs was aware

that the meat was not in accordance with the terms of his contract with the War Office. Proceedings were instituted upon the award, and the question decided by Mr. Justice Channell was that Mr. Hobbs was entitled to damages under certain heads. The question now raised was whether the offence was complete by the mere fact of exposing and selling meat unfit for food, or whether it was necessary to prove, in addition, that the butcher knew that it was unfit for food. He was unable to appreciate the force of the contention that the doctrine of *mens rea* could have any meaning to all except a person charged with the offence himself had knowledge of it. It was irrelevant to say "I was not aware of it." He thought they were not without clear guidance on this point, for Mr. Justice Stephens had laid down the true principle for such cases. He was dealing with the case of a publican who had been charged with selling drink to a druuken person, but had no knowledge—nor did his servants—that the man was drunk. But Mr. Justice Stephens said this, that want of knowledge was not necessary, but only a mitigation of the offence, which warranted a mitigation of the penalty. In 1906, the Lord Chief Justice, in the case of a person summoned for having in his possession diseased meat, held that it was not necessary to show that the defendant had personal knowledge, and that having regard to the language of the section and the object of the Legislature, there was no reason why a person who was in possession of an unsound article should not be liable to the penalty, and therefore *mens rea* was not necessary. The Legislature trusted to the good sense of magistrates not to send a man to prison under Section 117 if it were proved that neither the man nor his servants were aware of the bad condition of the meat. Under such circumstances the magistrates could impose a nominal fine, or, indeed, no fine at all. His view in this case was that Mr. Hobbs was in default, and that in consequence he could not invoke the provisions of Section 308, and therefore the Appeal must be allowed and the action dismissed. He would like to add they had dealt only with the default point, and had not called for full argument on the other points. It must not be taken that as at present advised they were able to follow Walshaw v. The Brighouse Corporation case.

Mr. Justic Farwell concurred, adding that a butcher who did, in fact, sell meat that was unfit, was not entitled to secure compensation by way of damages on the ground that he was not himself in default. He thought that the butcher in such circumstances was in default. The object of the Public Health Act was to protect the public. Unsound meat was a danger to health. Who had to take the the risk of meat being unsound? Someone must, either the butcher or the public. The Legislature intended that the butcher should take that risk. The guilt or innocence of the butcher did not affect the question of the public health. It was unsound meat which affected public health, and the Legislature said that a butcher who sold unsound meat did so at his peril. There was nothing said about knowledge. There was nothing in the general purview of the Act which justified a butcher in selling unsound meat, even innocently. The legislature went to great length in making dealers responsible for the things they sold to the public, whether they knew, or whether they did not know, that the things were sound.

Mr. Justice Kennedy also concurred, mentioning that the point was whether Mr. Hobbs was in default, as clearly he was. The object of the Statute was to protect the buyers of what was a necessity, in the minds of most people, of human life—to protect the people from buying that which was unwholesome. If one had to look at it as a matter to be treated in the broadest way, the only inference of the Statute was that the peril of selling, ignorantly, was much less to be regarded than the peril to the public in buying bad meat, for the peril to the public in this respect would be great if it were necessary in every case to prove *mens rea*, as Mr. Avory had sought to say must be proved. A man took upon himself to offer goods to make a profit by the sale to the public. These goods might be so impregnated with disease as to carry death, or serious illness. The disease might be invisible to anyone but an expert. But to say that there was a difficulty in the discovery was enough to make a man free and to excuse him because he could not have technical knowledge, was simply to say that the public were to be unprotected from the risk because a man, for mere profit, chose to take the risk of selling that which might be bad. The law was that if a man chose, for profit, to engage in a business which involved offering that which might be deadly or injurious to health, he must take that risk. It was not sufficient to say he could not have discovered it unless he had an analyst, or had an education of a highly scientific character. Men had chosen to engage in what might be a dangerous business, and therefore it was at their peril that they committed acts which might prove to the danger of the health of the public. In this case, however, there had been default on the part of Mr. Hobbs. Stress had been laid upon the character of the punishment which might be inflicted, but the point was that the Legislature assumed that judicial tribunals would exercise discretion in a judicial way. Because there might be cases in which it was shown that a man knowingly exposed bad food for sale, it was impossible to say that he should be free from imprisonment, and because there was such a clause it did not say that *mens rea* should be shown in every case. In these matters the magistrates had a wide discretion.

Judgment was accordingly entered for the Winchester Corporation, and the amount awarded by Mr. Justice Channell as compensation to Mr. Hobbs—namely, £918, and which sum had been paid into Court, was ordered to be refunded to the Winchester Corporation. The costs of the Corporation, of course, were allowed.—*The Meat Trades Journal.*

Horse Flesh in East London.

The sale of horseflesh, the exportation of worn-out horses, and the importation of sausages, about which a great deal has been heard, is interestingly discussed in the annual report of the Medical Officer of Health and Public Analyst for the Metropolitan Borough of Stepney, which has just been issued. It has been stated that horse-flesh is openly sold as human food in the East End of London, as well as in some of the other poorer parts of the Metropolis. These statements, according to Dr. D. L. Thomas, originated in a report made towards the end of the year 1907 by the Medical Officer of Health to the London County Council, in which it was stated that "there can, of course, be no doubt that much cats'-meat is still eaten by human beings in London. It is largely sold in extremely poor neighbourhoods, and the women seen buying four-pennyworth or five-pennyworth are clearly not buying for cats." It is also stated in the same report that the bulk of the cats'-meat is consigned to the East End of London.

The Medical Officer of Health for Stepney directly traverses these statements. Dr. Thomas states that the bulk of horseflesh sold in London comes from the country, but from sixty to seventy tons a week are produced by a firm of knackers in London itself. With the exception of three firms, the trade is in the hands of East End purveyors, who import seventy-five to eighty tons per week and sell it to the various cats'-meat shops in London. The meat is boned and boiled before it is sent by rail. On an average, eight horses are required to be boiled down to produce one ton of cats'-meat, so that between ten and eleven hundred horses are used up every week for that purpose. About ten tons of horse-

flesh used to be brought in to London every week from Glasgow and other parts of Scotland. This trade has now diminished to less than one half, owing, as Dr. Thomas is credibly informed, to the fact that in Scotland horseflesh is pickled and exported to Sweden and other Continental countries. A similar process was tried in the East End, but failed, as it was found that the price of pickled horse on the Continent was not much more than could be obtained for it in London when sold as cat's-meat.

From the report it appears that the difference between horseflesh and beef is so marked and distinctive that raw horseflesh exposed for sale in butchers' shops would at once attract the attention of the sanitary inspector. No horseflesh has been seized in the borough of Stepney since its inception nearly ten years ago. There are in the borough thirty-five purveyors of horseflesh for cats' meat, but there is no shop in the East End of London licensed to sell horseflesh as human food. The retail price of cats' meat varies from 2d. to 2½d. per pound, but the expenditure of each customer in the borough rarely exceeds one halfpenny, and none of the purveyors ever sold as much as fourpennyworth at a time except in one or two instances where it was known that large dogs had to be fed. The medical officer had interviewed every single dealer in cats' meat, and each one was emphatic in his statement that none of his customers bought it for human food. Mistakes have probably arisen from loose statements made with regard to "offal." In the butchering trade the word "offal" is not applied to refuse, rubbish, or waste meat, but to "the stomach, sweetbread, liver, tails, kidneys, etc."—some of the daintiest bits of the carcase.

With reference to the exportation of worn-out horses and the importation of sausages, Dr. Thomas reports that about 120 to 150 horses in poor condition are sent every week from September to March from a certain wharf in South London to Ghent, and that they are undoubtedly killed for the purpose of sausage making. About 110 to 150 horses are exported from a wharf in the City of London to Rotterdam every week throughout the year, as well as about 45 horses a week from the London Docks. These are usually in a fit condition to work, but on their arrival at Rotterdam they are escorted by Government officials and the police to the slaughterhouses, where they are killed within three days, to be sold as meat in the ordinary way in butchers' shops and not converted into sausages. Dr. Thomas has examined the German sausages imported into the borough, but has failed to detect the presence of horseflesh in any of them. The so-called German sausages manufactured in the borough by Jews are not made of horseflesh, because Jews will neither eat nor prepare for human food any animal that is not *kosher*. As an officer of thirteen years' standing and with an East End experience of twenty-four years, Dr. Thomas states that he has found no evidence whatever that poor people in the borough of Stepney eat cats' meat, and he has not the slightest hesitation in saying that they do not knowingly eat horseflesh either as cats' meat or sausages.—*Westminster Gazette.*

The Traffic in Worn Out Horses

L'Etoile Belge says:—

"The Belgian Government will shortly publish a decree prohibiting the landing of broken-down English horses at all Belgian ports. Another decree will regulate the transport into the interior of the country of such horses as are admitted."

Prof. M'Eachran, Montreal, has had shipped to him by Mr. W. J. Smith, Largiebeg, Campbeltown, a nice selection of well-bred Clydesdale fillies bred in his native Kintyre.

Mr. Plowden's Judgment.

At Marylebone, before Mr. Plowden, Edgar Cook, a carman, was charged on remand with cruelty to a horse.

This was the case which led the magistrate to make some strong comments on the conflicting evidence of veterinary surgeons, and to suggest that in future he should be his own expert.

The prisoner was fined £2 with £5 5s. costs.

Glanders in Ebbw Vale.

The Board of Trade inspection has been proceeding for several weeks. Nearly all the horses in the Old Pit, Waunlwyd, where the inspection is now proceeding, are said to be more or less affected, and it is probable that forty or fifty will have to be destroyed. The whole of that colliery, which is one of the largest under the Ebbw Vale Company, was idle on Monday and Tuesday. The loss of the valuable animals in itself is a grave matter. But the loss to the company and workmen will be a serious item should the bulk of the underground horses be found to be suffering from the disease.

Two cases of glanders are reported from the Pontypool district, one from Cwmynyscoy and one from Nantyderry. Both animals have been destroyed.

A Method of Examining for Eggs of Parasites.

Teleman, writing in the *Deutsche Medizinische Wochenschrift*, described a method for facilitating the discovery of the eggs of parasites in fæces. Five different samples, each about the size of a pea, are taken from the stool which it is desired to examine. These are placed together in a test-tube containing a mixture of equal parts of ether and hydrochloric acid. The tube is then shaken vigorously in order to break up the fæcal samples, gas being given off in the process. Neutral fats and free fatty acids are dissolved by the ether, and in the hydrochloric acid are found the albuminoid substances mucin, soaps, phosphates, and salts of lime. The large particles not dissolved are separated off from the mixture by means of a filter, the resulting filtrate being next centrifugalised for a minute. The filtrate will then be seen to consist of three layers. The topmost layer consists of the ether and the dissolved fatty bodies; the middle layer contains the hydrochloric acid, and the bottom layer is made up of substances insoluble in both reagents, such as cellulose, muscle fibres, and the eggs of parasites. These last can be seen with extraordinary clearness, even under a low-power microscope, after removing the supernatant reagents, but, of course, the number to be seen in any one field depends both on the number present in the stools and the quantity of fæcal matter examined.

Leucocyes in Relation to Medicinal Substances.

At the International Congress of Medicine at Budapest Drs. Arnozan and Carles, of Bordeaux, raised an interesting question as to the action of the leucocytes in relation to the absorption and elimination of medicinal substances. It is generally supposed that such substances, when absorbed, circulate in the blood in a state of solution. But recent observations have shown that when such substances as calomel, iodoform, arsenic bisulphate, metallic mercury, and certain iron and silver salts are injected hypodermically, they are taken up by the leucocytes and circulate in the blood in this way. Enclosed in these corpuscles the authors attempt to show the changes of fortune these substances may undergo. Some are modified in composition or decom-

posed altogether, others are ejected by the corpuscles within certain viscera and tend to accumulate there. Others, again, are eliminated with the corpuscles either at the surface of the intestinal mucous membrane or at some ulcerating surface, if such exists. The authors suggest that these facts explain the varying results obtained with different remedies. In the case, for instance, in which there is an attraction of leucocytes to the seat of disease, one can understand that a very small dose concentrated upon the lesion by the accumulation of leucocytes might have a very pronounced effect. On the other hand, medicaments locked up, as it were, in the bodies of the leucocytes might never encounter the morbid agents, which may also be shut up in other leucocytes or free in the tissues. In this way may be explained the frequent failure of the internal administration of antiseptics in infective cases. It is suggested, further, that in cases of microbic infection too much food or drugs may encumber the leucocytes and disable them from carrying out their functions of absorbing and eliminating the microbes and their toxins from the system.

Sterilising the Skin with Petrol and Benzine.

Dr. Zatti recommends lavage with petrol and benzine. The region to he operated upon is shaved on the previous day, but no washing or antiseptic compresses are necessary. When the patient is on the operating table, sterilised towels are placed around in the usual way, care being taken to cover over the mackintosh sheets so as to protect them from the action of the petrol. A large swab of cottonwool soaked in petrol is rubbed well over the skin for a minute or so, and the skin is similarly treated with a second swab soaked in benzine. The operation is then proceeded with.

According to the author this method has the advantage over the application of tincture of iodine that it does not discolour, harden or irritate the skin ; but, on the contrary, makes it supple, smooth, and somewhat unctuous, and at the same time he finds it thoroughly successful in point of sterilisation. He has used the method for the last three years and for more than 700 operations of all varieties. Among others these operations have included 193 radical cures for hernia, 54 laparotomies, seven resections of joints, nine excisions of the breast for cancer, and four operations for goitre. The method has the further advantages of rapi lity and simplicity, and the patient is not submitted to the chilling effect of extensive washing.

The Bactericidal Power of Milk.

According to the *Revue d'Hygiène de la viande et du lait*, Dr. Bordelli, as the result of a long series of experiments, comes to the following conclusions with regard to the bactericidal power of milk : (1) This power is an obvious phenomenon which is to be observed up to a temperature of 60°C., but is not to be found between 60° and 75°C. (2) In milk heated to 60°C. the diminution in the number of germs is constantly preceded by an augmentation of their number. (3) In milk to which a filtrate of milk has been added the bactericidal power is greater than in normal milk. (4) This bactericidal power is met with in milk filtrate which has been infected. (5) The bactericidal power which is noticed in normal milk and milk filtrate cannot be attributed to the action of special bactericidal substances. (6) The progressive acidity of milk is, in the author's opinion, the principal factor in this bactericidal power. Thus the question of bactericidal power in the case of milk reduces itself to a fight for existence, a fight in which the micro-organisms of acid fermentation are the conquerors.

THE CYCLOPEDIA OF SPORT. Edited by the Earl of Suffolk and Berkshire. New and enlarged edition, with illustrations in colour and black and white. Vol. I. No. 1. Price 1s. net. (William Heinemann, London.)

This, the enlarged and revised edition of a popular Cyclopedia of Sport which first appeared about a dozen years ago, will be completed in about thirty parts, the present being the first. Only five articles appear in this number—three long ones on Aeronautics (including, of course, the recent developments of aviation), Angling and Antelopes, the last being still incompleted with two much shorter ones on Alligators and Ammunition. The work, which is thus intended to give an account of sport in all parts of the world, will doubtless comprise not a few subjects of interest to the veterinary profession, which the first number, for alphabetical reasons, can scarcely be said to do. The literary matter is popular in scope, and lucidly written, though we note that the references to dry-fly fishing for trout might perhaps lead the novice to suppose that piscatorial refinement to be a more recent innovation than is really the case. The illustrations are very numerous and good, and the editor's preface indicates that these are to be a prominent feature throughout the present edition.

W.R.C.

Personal.

The King has been pleased on the occasion of the day set apart for the celebration of His late Majesty's birthday to give directions for the following promotions in and appointments to the Most Distinguished Order of Saint Michael and Saint George :

* * *

C. M. G.

Mr. JOHN GUNION RUTHERFORD, Veterinary Director General and Live Stock Commissioner, Department of Agriculture, Canada.

Mr. W. G. BARNES, M.R.C.V.S., Superintendent of the Metropolitan Markets and Abattoirs, was one of the deputation from the City of London Markets Committee which visited the new abattoir of the city of Edinburgh at Slateford.

VETERINARY SURGEONS AND FARRIERS' FORGES.

Sir,

I venture to address to you a plain statement of fact, and to ask one question arising therefrom. A few months ago my name appeared outside a forge. I was peremptorily ordered to remove it, and of course did so.

Since then the name of a M.R.C.V.S. has appeared outside a forge at Stratford, E., well within the area of competition and there it is allowed to remain. If the edict of the Registration Committee of the Royal College of Veterinary Surgeons is strictly interpreted and rigidly enforced in one case, why not in another, and in all?—I am, sir, yours, etc.,

A STRATFORD PRACTITIONER.

[The Registration Committee can only act on information ; has this been given in the latter case?—ED.]

COMMUNICATIONS AND PAPERS RECEIVED:—Mr. J. R. Smith. "A Stratford Practitioner."

The Encyclopedia of Sport, Vol. I., No. 2,

The Derby Daily Telegraph.

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